**3GPP TSG-RAN WG3 Meeting #119bis-e R3-231725**

**Electronic meeting, 17 Apr – 26 Apr, 2023**

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| *CR-Form-v12.2* |
| **CHANGE REQUEST** |
|  |
|  | **38.423** | **CR** | **1032** | **rev** | **1** | **Current version:** | **16.13.0** |  |
|  |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network | **x** | Core Network |  |

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|  |
| ***Title:***  | Correction on Trace Activation IE |
|  |  |
| ***Source to WG:*** | Huawei, Deutsche Telekom, Orange, CMCC, Ericsson, Nokia, Nokia Shanghai Bell |
| ***Source to TSG:*** | R3 |
|  |  |
| ***Work item code:*** | NR\_SON\_MDT-Core |  | ***Date:*** | 2023-04-10 |
|  |  |  |  |  |
| ***Category:*** | F |  | ***Release:*** | Rel-16 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)…Rel-16 (Release 16)Rel-17 (Release 17)Rel-18 (Release 18)Rel-19 (Release 19)* |
|  |  |
| ***Reason for change:*** | This CR contains 1 detected misalignment issue between tabular and ASN.1:1. *Trace Activation* IE in tabular of Trace Start procedure is mandatory, while it is optional in ASN.1
 |
|  |  |
| ***Summary of change:*** | 1. Align tabular on ASN.1, add semantics description.
2. Add abnormal condition.

Impact Analysis:Impact assessment towards the previous version of the specification (same release): This CR has isolated impact with the previous version of the specification (same release) because we force the inclusion of a required IE for MDT trace. Would not affect implementations already behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.This CR has an impact under protocol & functional point of view. The impact can be considered isolated because the change affects MDT trace functionality.  |
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| ***Consequences if not approved:*** | Misalignment issues between tabular and ASN.1 exists in the spec. And Trace Start procedure will not work when *TraceActivation* IE is not present. |
|  |  |
| ***Clauses affected:*** | 8.3.14.3, 9.1.2.26 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  | **x** |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  | **x** |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  | **x** |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

### 8.3.14 Trace Start

#### 8.3.14.1 General

The purpose of the Trace Start procedure is to allow the M-NG-RAN node to request the S-NG-RAN node to initiate a trace session for a UE. The procedure uses UE-associated signalling.

#### 8.3.14.2 Successful Operation



Figure 8.3.14.2-1: Trace Start, successful operation

The Trace Start procedure is initiated by the M-NG-RAN sending the TRACE START message to the S-NG-RAN for that specific UE. Upon reception of the TRACE START message, the S-NG-RAN shall initiate the requested trace session as described in TS 32.422 [23].

If the *Trace Activation* IE includes

- the *MDT Activation* IE set to "Immediate MDT and Trace", and if the S-NG-RAN node is a gNB, it shall, if supported, initiate the requested trace session and MDT session as described in TS 32.422[23].

- the *MDT Activation* IE set to "Immediate MDT Only"or "Logged MDT only", and if the S-NG-RAN node is a gNB, it shall, if supported, initiate the requested MDT session as described in TS 32.422[23] and the S-NG-RAN node shall ignore the *Interfaces To Trace* IE and the *Trace Depth* IE.

- the *MDT Location Information* IE, within the *MDT Configuration* IE, and if the S-NG-RAN node is a gNB, it shall, if supported, store this information and take it into account in the requested MDT session.

- the *MDT Activation* IE set to "Immediate MDT Only" or "Logged MDT only", and if the *Signalling based MDT PLMN List* IE is included in the *MDT Configuration* IE, and if the S-NG-RAN node is gNB, it may use it to propagate the MDT Configuration as described in TS 37.320 [43].

- the *Bluetooth Measurement Configuration* IE, within the *MDT Configuration* IE, and if the S-NG-RAN node is a gNB, it shall, if supported, take it into account for MDT Configuration as described in TS 37.320 [43].

- the *WLAN Measurement Configuration* IE, within the *MDT Configuration* IE, and if the S-NG-RAN node is a gNB, it shall, if supported, take it into account for MDT Configuration as described in TS 37.320 [43].

- the *Sensor Measurement Configuration* IE, within the *MDT Configuration* IE, the S-NG-RAN node shall take it into account for MDT Configuration as described in TS 37.320 [43].

- the *MDT Configuration* IE, and if the S-NG-RAN Node is a gNB at least *the MDT Configuration-NR* IE shall be present, while if the S-NG-RAN Node is an ng-eNB at least the *MDT Configuration-EUTRA* IE shall be present.

#### 8.3.14.3 Abnormal Conditions

If the *Trace Activation* IE is not included in the TRACE START message, the S-NG-RAN node shall ignore the message.

#### 9.1.2.26 TRACE START

This message is sent by the M-NG-RAN node to initiate a trace session for a UE.

Direction: M-NG-RAN node → S-NG-RAN node

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
| Message Type | M |  | 9.2.3.1 |  | YES | ignore |
| M-NG-RAN node UE XnAP ID | M |  | NG-RAN node UE XnAP ID9.2.3.16 | Allocated at the M-NG-RAN node. | YES | reject |
| S-NG-RAN node UE XnAP ID | M |  | NG-RAN node UE XnAP ID9.2.3.16 | Allocated at the S-NG-RAN node. | YES | reject |
| Trace Activation | O |  | 9.2.3.55 | This IE is always present. | YES | ignore |

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Start of Change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/

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-- TRACE START

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TraceStart ::= SEQUENCE {

 protocolIEs ProtocolIE-Container { {TraceStartIEs} },

 ...

}

TraceStartIEs XNAP-PROTOCOL-IES ::= {

 { ID id-M-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

 { ID id-S-NG-RANnodeUEXnAPID CRITICALITY reject TYPE NG-RANnodeUEXnAPID PRESENCE mandatory}|

 { ID id-TraceActivation CRITICALITY ignore TYPE TraceActivation PRESENCE optional },

 ...

}

/\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*End of Change\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/